

Floods Caused by Tropical Systems: Rivanna River at Palmyra

Latitude: 37.858

Period of Record: 1934-Present

Longitude: -78.266

Flood Stage: 17 ft

Last Flood: 4/20/2015

Number of Floods: 116

| Date of Crest | Crest (ft) | Streamflow (cfs) | Remarks |
|---------------|------------|------------------|--|
| 8/20/1969 | 39.85 | 86,000 | Remnants of Hurricane Camille produced 12-20 inches of rainfall. In Virginia, most of the rainfall occurred in a 3-5 hour period and caused several record-setting floods. |
| 6/22/1972 | 37.34 | 73,400 | Hurricane Agnes made landfall again over southeastern New York on June 22 and moved westward into Pennsylvania. Rainfall totals from June 20-25 range from 2-3 inches in the Upper Potomac to 18 inches near Shamokin, Pennsylvania. |
| 10/16/1942 | 36.50 | 78,000 | The remnants of the eighth tropical storm of the year produced torrential rains and caused the worst river flooding in the history of Virginia. |
| 9/7/1996 | 31.54 | 50,900 | Hurricane Fran produced up to 16 inches of rain in the western part of Virginia and up to 7 inches in the Juniata Basin in Pennsylvania. Fran was the worst flood even to hit Maryland since Hurricane Hazel and the January 1996 Flood. |
| 8/19/1955 | 29.00 | 34,800 | Hurricane Diane made landfall 5 days after Hurricane Connie. Hurricane Diane produced several inches of rain with locally heavier amounts of 10 to 20 inches. |
| 9/9/1987 | 26.65 | 32,200 | Tropical Depression Nine merged with a cold front to produce over 5 inches of rain in Virginia and 3-7 inches of rain in Pennsylvania. |
| 11/5/1985 | 26.53 | 31,800 | Hurricane Juan produced more than 1 inch of rain in VA with more than 7 inches reported in higher elevations. A coastal low pressure system produced an additional 1-7 inches of rain and caused widespread major flooding in Virginia and Maryland. |
| 9/6/1935 | 26.27 | 29,000 | The "Labor Day Hurricane" dumped heavy rain along the East Coast. A total of 16.62 inches of rain was reported in Easton and 12.1 inches of rain was reported in Salisbury, MD. |

Drainage Area: 663 sq mi

Tropical information before 1940 is limited.

County of Gage: Fluvanna

Gage Datum: 210.39 ft MSL

James Basin

County of Forecast Point: Fluvanna

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| Date of Crest | Crest (ft) | Streamflow (cfs) | Remarks |
|---------------|------------|------------------|---|
| 9/19/2003 | 25.91 | 30,000 | Hurricane Isabel combined with another system and produced more than 3 inches of rain in VA with locally heavier amounts of 10 inches. Another low pressure system moved through the region and produced a few additional inches of rain. |
| 9/6/1979 | 25.50 | 25,800 | Hurricane David dumped 3-7 inches of rainfall across Virginia, Maryland and Pennsylvania. |
| 9/26/1975 | 23.46 | 20,300 | The remnants of Hurricane Eloise combined with a cold front and produced very heavy rainfall in the Mid-Atlantic. Washington, D.C. reported 9.08" of rainfall. Total damage for Virginia was estimated to be \$17.2 million. |
| 8/17/1940 | 21.78 | 16,300 | As a strong Category 1 storm, the Southeast Hurricane produced over 1 inches of rain just south of our basins and caused widespread flooding across Virginia. |
| 7/3/2003 | 21.32 | 17,687 | The remnants of Tropical Storm Bill collided with a frontal system and produced over an inch of rain across most of Virginia and Maryland. Some locations in Central Virginia reported storm totals of 3 to 5 inches. |
| 10/1/1959 | 20.41 | 15,700 | Hurricane Gracie produced 3 inches of rain across Virginia with locally heavier amounts. 13.2 inches of rainfall was reported in Big Meadows, VA. |
| 8/19/1985 | 19.57 | 12,900 | The remnants of Hurricane Danny brought heavy rain to parts of the Mid-Atlantic region. Most of Virginia had at least one inch of rain with locally higher amounts of 7 inches. Minor flooding occurred in the James and Appomattox Basins. |
| 9/29/2004 | 18.39 | 12,600 | Hurricane Jeanne stalled a cold front and supplied the front with much-needed moisture. As a result, 1-day rainfall totals ranged from 1 - 6 inches throughout the Mid-Atlantic region. |
| 9/9/2004 | 17.98 | 12,200 | The remnants of Hurricane Frances combined with a low pressure system and produced heavy rain throughout the Mid-Atlantic. Rainfall totals ranged from 2 - 3 inches in New Jersey to 2.5 - 6 inches in Central Pennsylvania. |

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James Basin

County of Gage: Fluvanna
County of Forest Point: Fluvanna

| Date of Crest | Crest (ft) | Streamflow (cfs) | Remarks |
|---------------|------------|------------------|--|
| 2/4/1952 | 17.38 | 11,000 | The Groundhog's Day extratropical storm produced over 1 inch of rainfall and caused minor flooding in the James Basin. |

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